

Claims for Application 09/682,315

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Amendments to the Claims (App# 09/682,315)

1 (Previously presented): A method for creating an application program in a codeless manner without using a compiler, the method implemented on a computer system having persistent storage, a display screen and one or more input devices, the input devices controllable by a user to create visual representations on the display screen, the method comprising following steps:

A. defining and supporting a set of pre-developed object classes, the said pre-developed object classes are all derived from one generic class which supports a property-method-event model; defining an action class and an action list class; the action class has, as its members, action performer, action method, and action data; the action list class contains a sorted list of action class instances; the action performer is one of the pre-developed object class; the action method is one of the methods supported by the action performer; the action data are the parameters needed by the action method;

B. generating and graphically displaying, in response to input from the user, instances of the object classes from the said pre-developed object classes;

C. setting, in response to input from the user, each property of each instance of the object classes created in step B[[:]].

2 (Previously presented): The method of claim 1 further comprising the step of:

D. creating, in response to input from the user, instances of the action list class which contains a sorted list of instances of the action class; [[W]]wherein step D comprises following steps

D1. Creating, in response to input from the user, each action class instance of each action list class instance; and [[W]]wherein step D1 comprises:

D1a. Selecting an instance of object class from the instances of object classes created in step B; the said selected instance of object class is used as the action performer member for the action class instance;

D1b. selecting a method from the methods supported by the instance of object class selected in step D1a; the selected method is used as the action method for the action class instance;

D1c. according to the method selected in step D1b, it is known the number and types of the parameters needed for the said method; if one or more parameters are needed for the said method, then one or more dialog-boxes are provided for the user to specify the appropriate parameters for the method[[:]].

3 (Previously presented): The method of claim 1 further comprising the step of

E. linking, in response to input from the user, action list instances created in step D to events of the instances of the object classes to form an event-action-list mapping so that the action list becomes an event handler for the event and thus codeless programming is achieved; [[W]]wherein step E

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comprises:

- E1. Selecting, in response to input from the user, an instance of object class from the existing instances of object classes;
- E2. Selecting, in response to input from the user, an event from the events supported by the object class instance selected in step E1;
- E3. Selecting, in response to input from the user, an action list class instance from the action list class instances created in step 2;
- E4. Building the mapping relationship between the action-list selected in step E3 and the event selected in step E2[;].

4 (Canceled)

5 (Canceled)

6 (Previously presented): The method of claim 1 further comprising the step of:

F. Selecting, in response to input from the user, a set of object class instances to be specified as the "initially active object class instances" usually the object class instances presented on the first application screen presentation is such a set of the "initially active object class instances";

G. saving to the computer persistent storage the object class instances created in steps A, B and C, the action list class instances created in step D, the mapping relationship built in step E between the events of object class instances and the action lists, indication of which object instances are the "initially active object class instances" as specified in step F;

H. an execution environment; [[W]]wherein step H comprises:

H1. Reading back from the computer persistent storage the object class instances created in steps A, B and C, the action lists created in step D, the mapping relationship built in step E between the events of the object class instances and the action list, indication of which object instances are the "initially active object class instances" as specified in step F;

H2. Creating and displaying the said "initially active object class instances";

H3. Responding to each event fired by each object class instance; [[W]]wherein step H3 comprises:

H3a. Checking if there is a mapping relationship between an action list class instance and the said event;

H3b. If the said mapping relationship exists, sequentially performing each action in the said action list mapped to the said event;

H3c. Each action in the said action list is performed by the following steps:

H3c1. Locating the object class instance which is assigned as the action performer for the action;

H3c2. Signaling to the said action performer which action method is specified for

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the action;

H3c3. If there are method data specified for the said method of the said located object class instance, the method data are passed to the said object class instance as well;

H3C4. The said located object class instance carries out the said action method.

7 (Previously presented): The method of claim 1 further comprising the step of:

I. A context-data buffer which saves event parameter data such as mouse position in mouse movement events; every time an event is fired, before an action list is executed as an event handler, the said context-data buffer is filled with the said event parameter data;

J. The said context-data buffer is available for the user to pick as the method data in step D1c[[:]].

8 (Canceled)

9 (Canceled)